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the data sequences is included in a second group of time slots allocated to different mobile stations

other than the first mobile station; and

transmitting a radio block from the base station to the mobile stations, wherein the radio

block includes data sequences with a midamble embedded between the data sequences.

8. The method of claim 7, wherein one part of the time slots of a frame is used in a TDD

subscriber-separation method on an uplink from the mobile stations to the base station and another

part of the time slots is used for a downlink from the base station to the mobile stations.

9. The method of claim 7, further comprising allocating different spread codes to different

mobile stations.

10. The method of claim 7, wherein, on an uplink from the mobile stations to the base

station, either one long radio block is transmitted by one mobile station for each time slot or two

short temporally orthogonal radio blocks are transmitted by two different mobile stations, the one

long radio block comprising two data sequences and each short radio block comprising only one

data sequence.

11. The method of claim 7, wherein a resource unit comprises bandwidth, a spread code, and

a time slot, and wherein between one-half and one resource unit is allocated to a mobile station

using hybrid-type allocation for use in transmission between the base station and the mobile stations.